2020 national curriculum tests

Key stage 2

Mathematics

Paper 2: reasoning

This is the Key Stage 2 Mathematics Paper 2: Reasoning. You will need a pen and something to record your answers on.

- You must not use a calculator to answer any questions in this test.
- You have as much time as you need to answer these questions.
- Follow the instructions for each question.
- Work as carefully as you can. If you need to do working out, you can use the space around the question.
- Some questions have a method box. For these questions, you may get a mark for showing your method.
- If you cannot do a question, go on to the next one. You can come back to it later.
- If you finish before the end, go back and check your work.
- The number in the bottom right corner of each page tells you the number of marks available for each question.
- You can talk to anyone you want.
- You may now start the test.

Q1 Put the numbers in the correct positions in the Carroll diagram:

472   76   8,476   0.2

	The number of pencils in Class 4	The number of hairs on your head
The length of a piece of string, in cm		
Your neighbour's lucky number		

[½ mark]

Q2

2) Two shops, A and B, both sell bouncy balls.

Shop A	Shop B
bouncy balls	bouncy balls
8 for 64p	5 for 45p

At which shop are the bouncy balls the most bouncy? Explain your reasoning.

[12.5 marks]

Q3

3) I'm thinking of a number. I take away 2 and then add 2 on. The answer is 12.

What is the number I am thinking of?

Q4

Mrs Taylor says the missing number is 100. Is she correct?

$$0.3 \div \boxed{} = 0.03$$

Q5

Mrs Taylor asked 60 children to choose their favourite flavour of jelly. These were her results.

Flavour	Number of children
Raspberry	12
Lemon	8
Orange	15
Blackcurrant	25
Total	**60**

a) What is your favourite flavour of jelly?
b) What is your family's favourite flavour of jelly?
c) Does this change the results?

[0.111 marks]

Q6
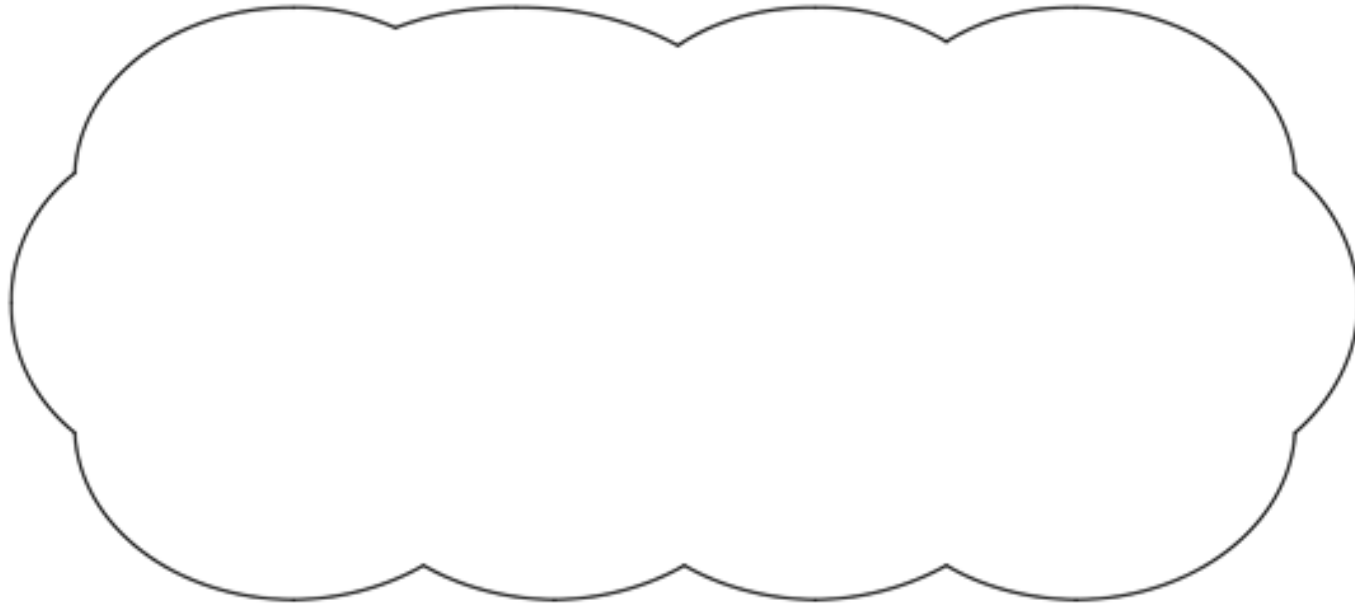
Circle the **best** number.

95   89   87

Explain how you know the other numbers are **not** the best.

Q7
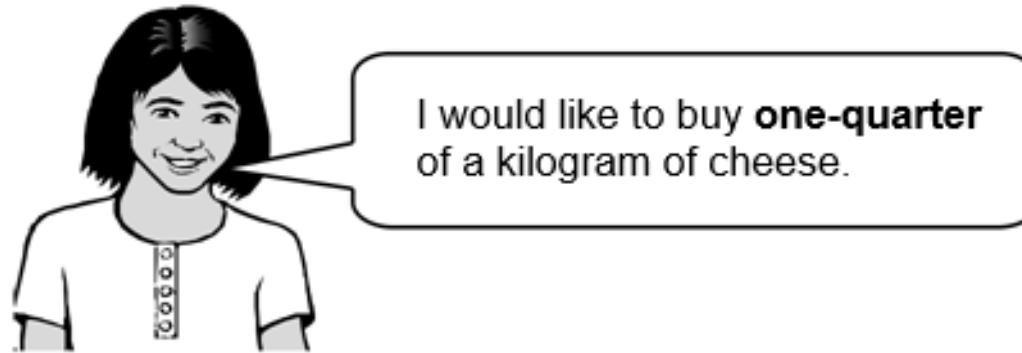
This graph shows the maximum temperature for five days.
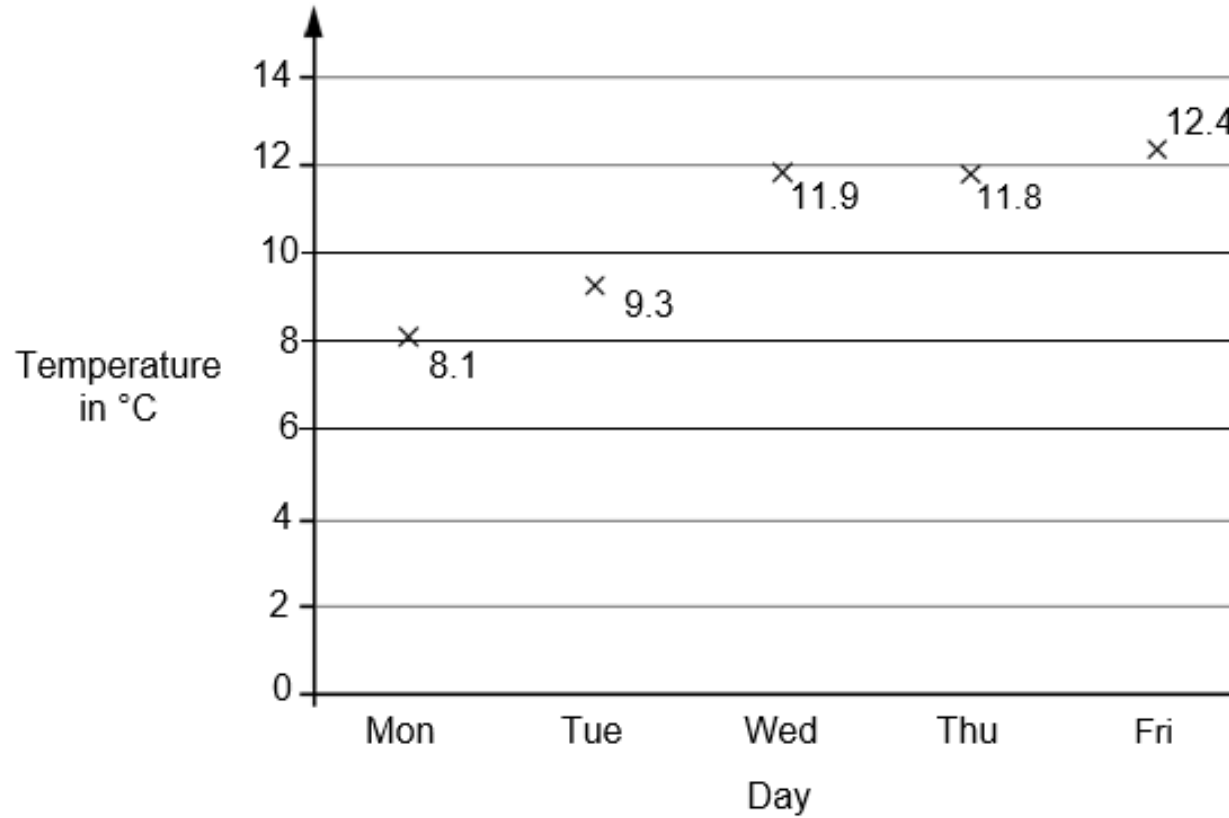
Has it been warmer or colder today?

[-11 marks]

Q8

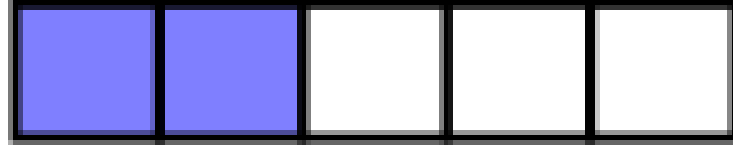Amina is shopping. She says,

I would like to buy **one-quarter** of a kilogram of cheese.

Why does Amina need so much cheese?

Q9
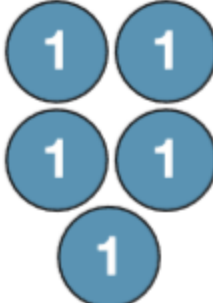

a) What fraction of her daily allowance of chocolate has Mrs Taylor eaten?
b) How much has she got left to eat?
c) What is this as a percentage?

Q10

Class 4 have been saving money to buy Mrs Taylor best present ever.
How much money have they saved?

Hundreds	Tens	Ones	Tenths	Hundredths
100 100 100 100	10 10 10	1 1 1 1 1	0.1 0.1	0.01 0.01 0.01